

Hello everyone. Welcome to today's session on the Nation's Report Card, focusing on what parents can do to improve student achievement overall and close achievement gaps.

I am Tonya Miles and very happy to be with you. I am a member of the National Assessment Governing Board, which oversees the Nation's Report Card. I am also a long-standing PTA member from Maryland and a former member of the MD State Board of Education.

Most importantly, I am an involved parent of three public school children.

My presence at the conference signals the collaborative relationship between the National PTA and the Governing Board that has developed over the last year.

This collaborative relationship has grown out of the Governing Board's initiative to reach parents, parent leaders, and parent organizations with data and resources from the Nation's Report Card, because of the urgent need to improve achievement and close achievement gaps.

The NPTA's longstanding prominence as an advocate for children, its leadership in education, and its unique position nationally and with its state and local affiliates, make this collaboration ripe with potential. I can tell you that the Governing Board is pleased and excited about it and this important step we are taking in the conversation we will have today.

We have structured our time together today so we can have a conversation, to hear from you. So for about the first half of today's session, I will pose some questions to prompt your thinking and provide background information. And then for the second half we will explore these questions together.

I will share these questions with you in a moment. Before I set the stage....

In Addition to Asking, *Are Our Students Doing Well?*...

We need to ask the bigger question:

★ *Is it good enough to get them where we want them to go?*

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The Phi Delta Kappan has conducted surveys for years on the public's satisfaction with schools. Generally, people rate schools overall poorly, but their own schools highly. Of course, mathematically, these two views cannot both be true.

The question is—how can we know if our state and district's schools overall are good enough, whether our child's school is good enough, and whether our child's achievement is good enough?

I heard a quote recently that made a big impression on me--Without data about schools you are just another person with an opinion.

I would add to that quote the following—Being able to make solid comparisons gives education data power.

And for parents—understanding the meaning of the comparisons can give parents the power to ask the right questions—questions that can lead to positive and productive conversations with education leaders to improve achievement and close achievement gaps.

My presentation today is going to focus on fostering your questions.

However, I am going to ask you to hold your questions until I finish my presentation—maybe write them down as they occur to you. I do have a lot to share.

Questions We Will Explore Together:

- ★ **Do We Have an Achievement Crisis in the U.S.?**
- ★ **What Is The Nation's Report Card/NAEP?**
- ★ **What Does NAEP Say About Student Achievement and Achievement Gaps?**
- ★ **Is NAEP Relevant to Parent Leaders?**
- ★ **What Can Parent Leaders Do About Improving Achievement and Closing Gaps?**

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These are the questions I will be addressing in my presentation, to discuss together in the second half.

Please take a minute to read and reflect on these questions and then let's get started.

Do We Have an Achievement Crisis in the United States?

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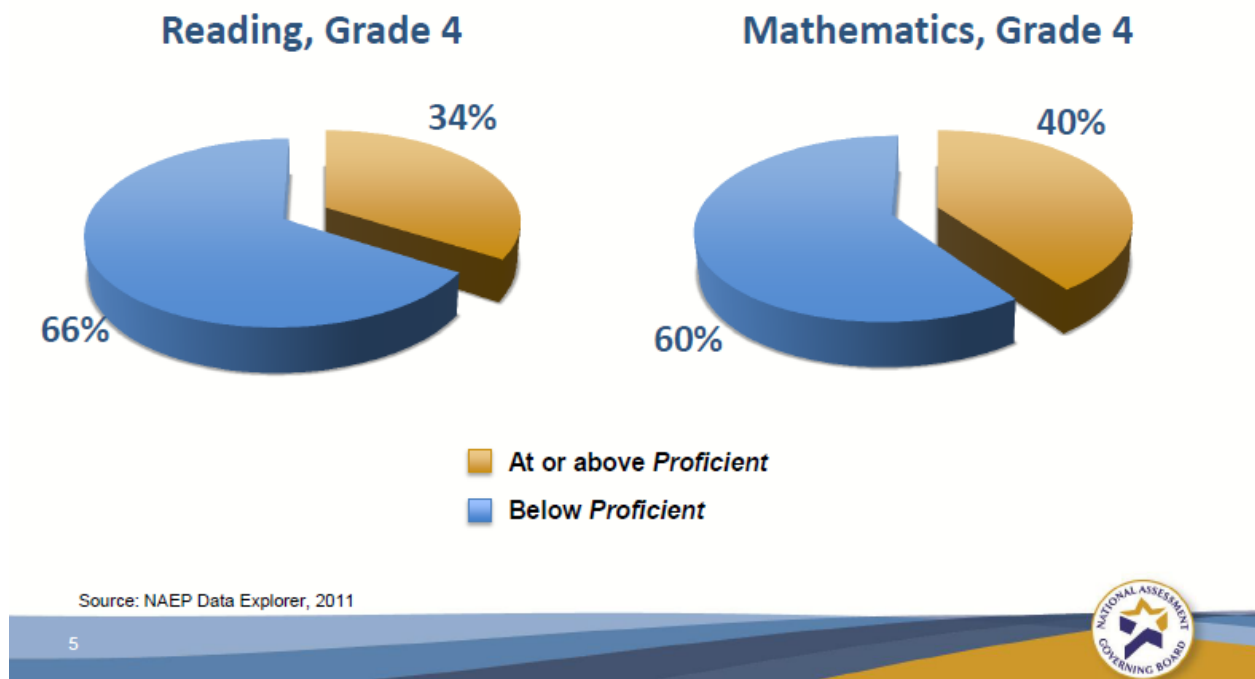


Is there an achievement crisis in the United States? Are our students being challenged academically? How well are they performing?

Let's see what the Nation's Report Card—also known as the National Assessment of Educational Progress tells us. I will be using the acronym NAEP today just to keep things simple.

I will present some data from NAEP now, and will provide a little background information on NAEP later in the presentation.

Is Grade 4 Achievement Nationally Good Enough?



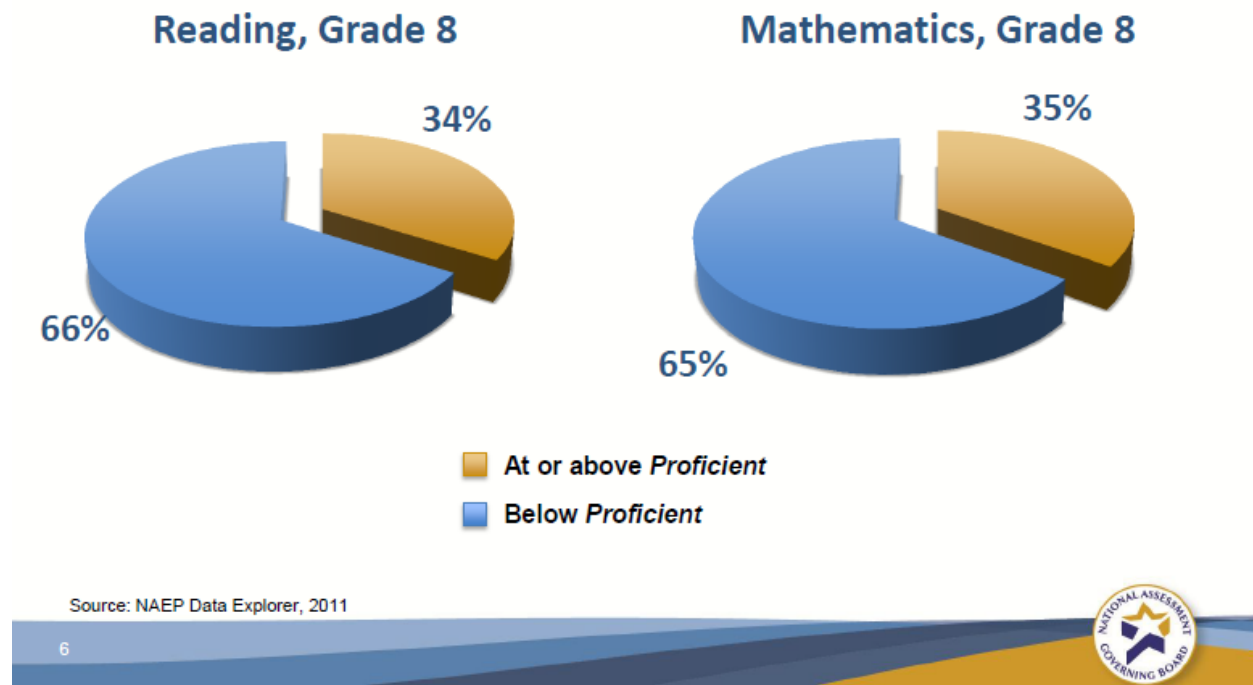
These are the NAEP national results from 2011 at grade 4 in reading and math. I will show you results for grade 8 and 12 in a minute. The gold slices of the pie charts show the percentage of 4th graders at or above Proficient on NAEP in reading and math. The blue slices show the percentage below Proficient.

I will provide a definition of Proficient later in my presentation, but for now, just keep in mind that Proficient means solid academic achievement and competency over challenging subject matter. It is a rigorous standard.

In 2011, at grade 4 in reading—34% performed at or above Proficient on NAEP; 66% performed below Proficient.

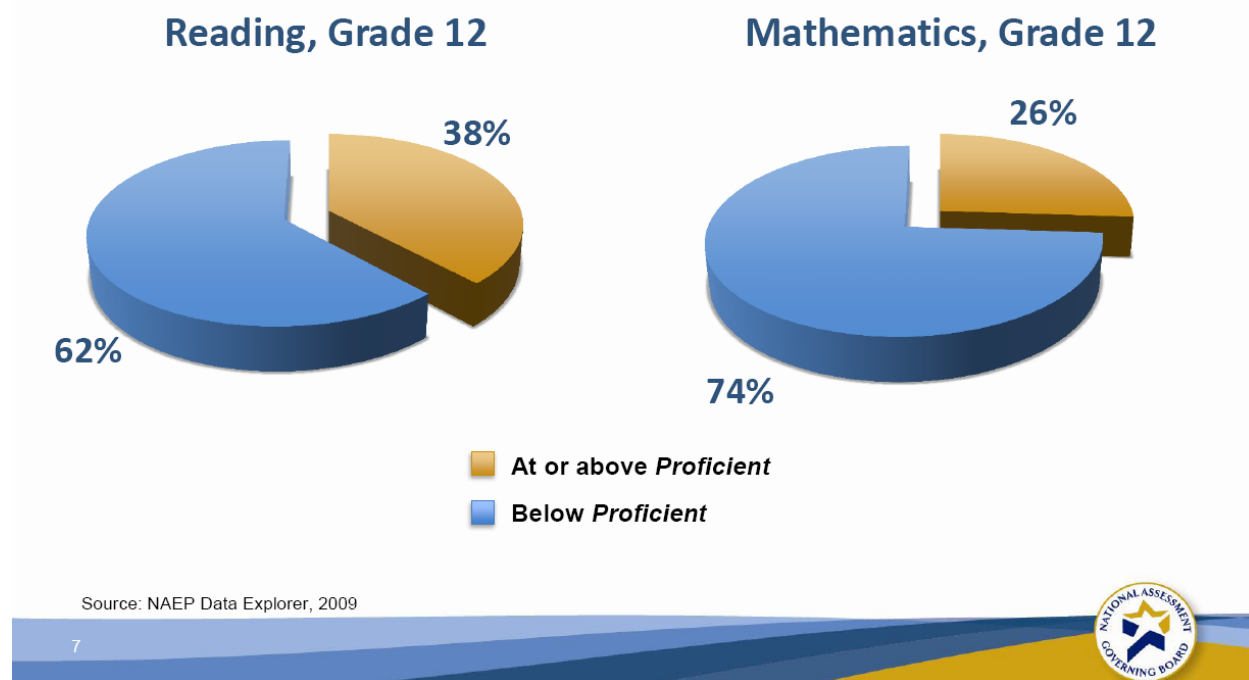
In math—40% were at or above Proficient on NAEP; 60% below Proficient

Is Grade 8 Achievement Nationally Good Enough?



Here are the results for 8th grade—about the same as grade 4 in reading and a smaller percentage than grade 4 at or above proficient in math—35% at 8th grade vs. 40% at 4th grade.

Is Grade 12 Achievement Nationally Good Enough?



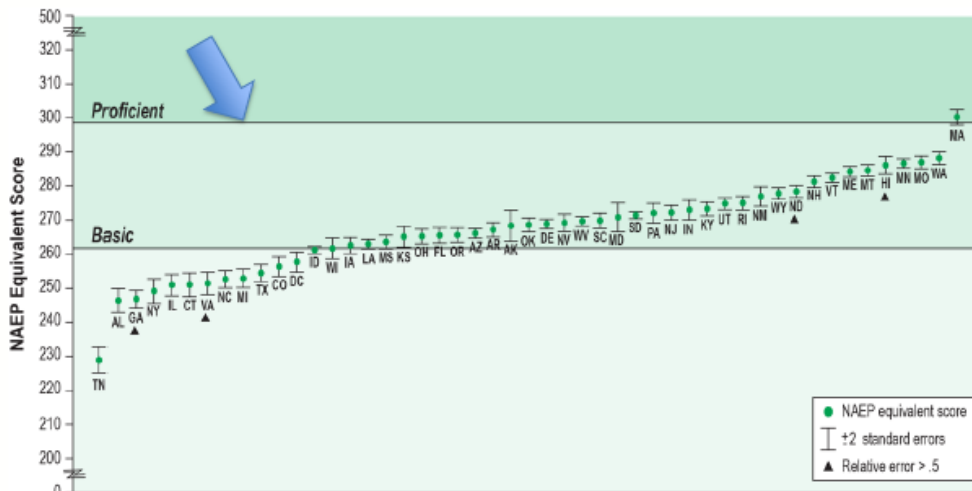
Here are the most recent 12th grade results—from 2009.

In reading 38% at or above Proficient; 62% below Proficient

In math 26% at or above Proficient; 74% below Proficient

Standards for “Good Enough” Vary Across States

State Standards for Proficient Arrayed on NAEP Scale Mathematics, Grade 4



Source: 2009 NAEP State Mapping Study

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As you know each state has its own standards and assessments. While the assumption may have been made that these different state tests and performance standards were similar, it wasn't until the state standards were compared using NAEP that the variability was documented.

The vertical line along the left is the NAEP scale for 4th grade math: 0-500 points. In 2009, the percentage of students reported as being at or above Proficient on the state assessment was translated to the point on the NAEP scale that represented the same percentage of students,

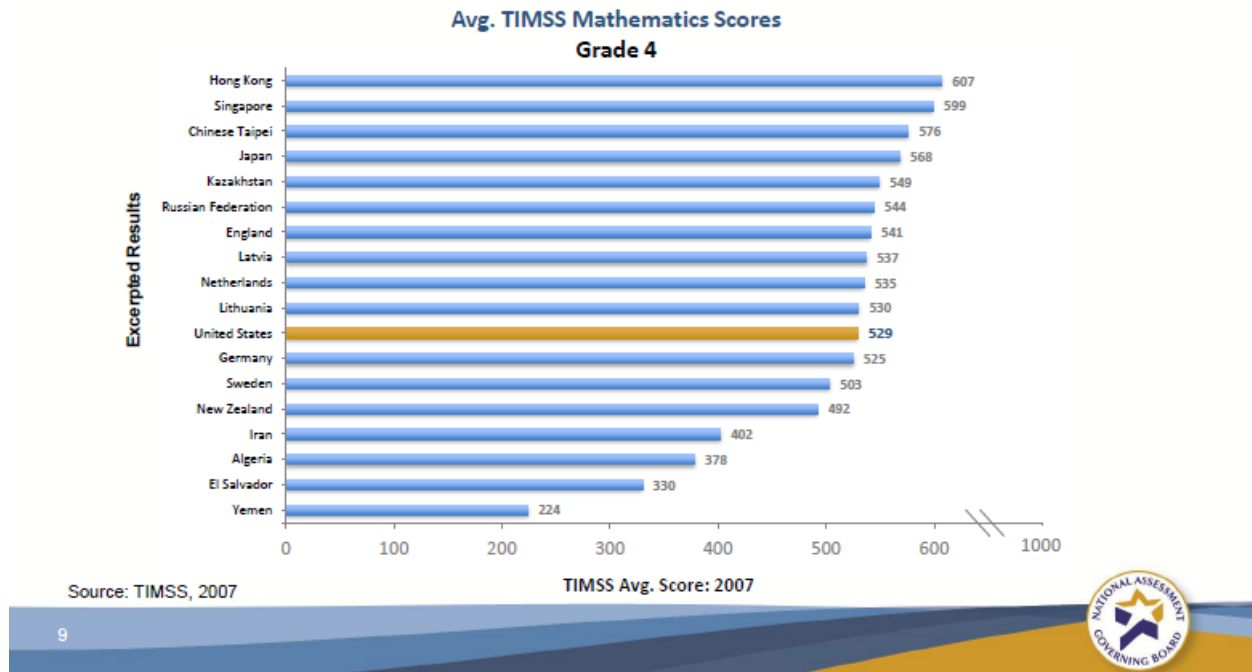
The state results are arrayed from left to right from lowest to highest in terms of where the standards appear on the NAEP scale. As you can see there is a great degree of variability.

The blue arrow near the top is pointing to the score on NAEP that is the score for NAEP Proficient. As you can see, one state has set its standard at that point. For my presentation today, it is not my intent to highlight any specific state, but to show you what you can learn about your state, and how it compares to other states.

One important note: it was this series of NAEP studies, documenting the variability of state standards, that helped prompt the state led Common Core State Standards Initiative. We can talk more about NAEP and Common Core during our discussion period.

U.S. Student Achievement Falls Behind That of Students in Other Countries

- ★ At grade 4, U.S. students scored 70–78 points lower in math on TIMSS than students in the top-scoring countries.



Another way of looking at the question of whether U.S. student achievement is good enough is to look at international assessments. The test results we will be looking at are from TIMSS—which stands for Trends in International Mathematics and Science study.

You will see in the next several slides that the U.S. is out-performed by a good number of our global competitors.

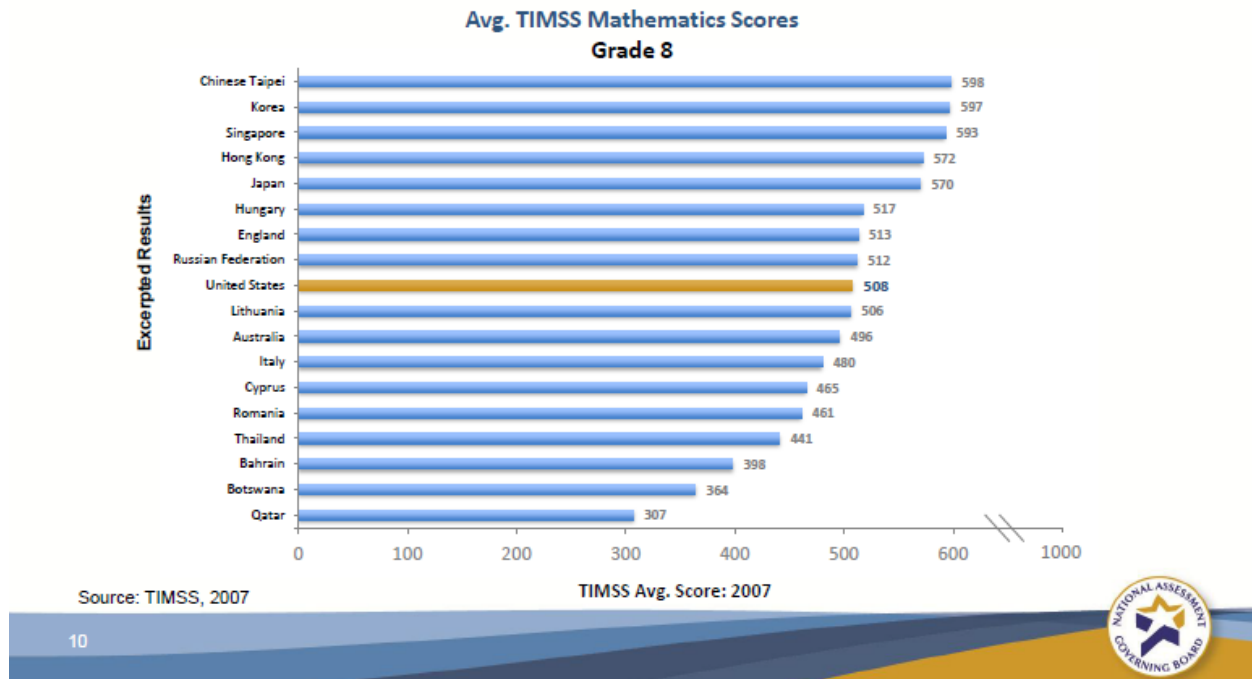
Some analysts argue that there are flaws in international comparisons—for example, there are countries that may not include students with disabilities in their national samples because of how their schools are organized.

It is fair to interpret the results with appropriate caution, but we cannot ignore these results.

These are the grade 4 math results—the U.S. is the gold line.

U.S. Student Achievement Falls Behind That of Students in Other Countries

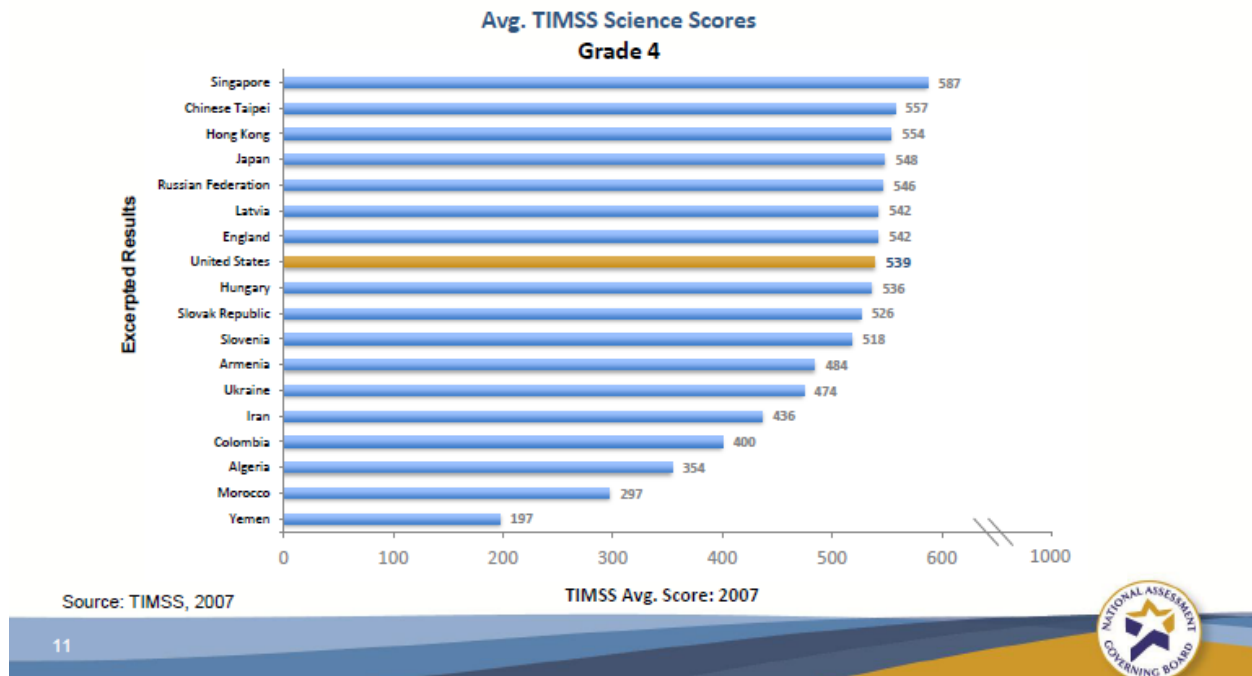
- ★ At grade 8, U.S. students scored about 90 points lower in math on TIMSS than students in the top-scoring countries.



Here are the grade 8 results in math.

U.S. Student Achievement Falls Behind That of Students in Other Countries

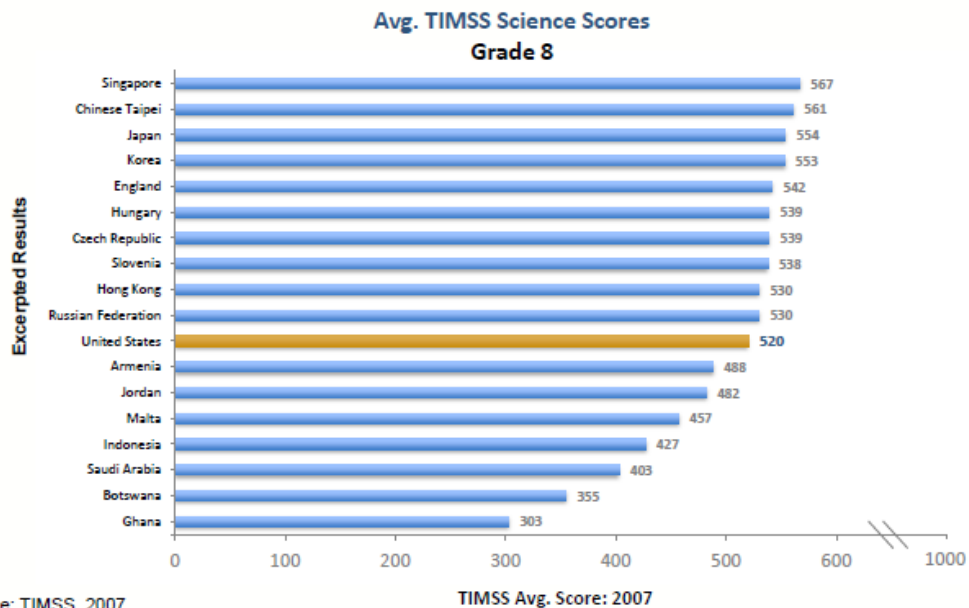
- ★ At grade 4, U.S. students scored significantly lower in science on TIMSS than students in other tested countries.



These are the 4th grade science results.

U.S. Student Achievement Falls Behind That of Students in Other Countries

- ★ At grade 8, U.S. students scored significantly lower in science on TIMSS than students in other tested countries.

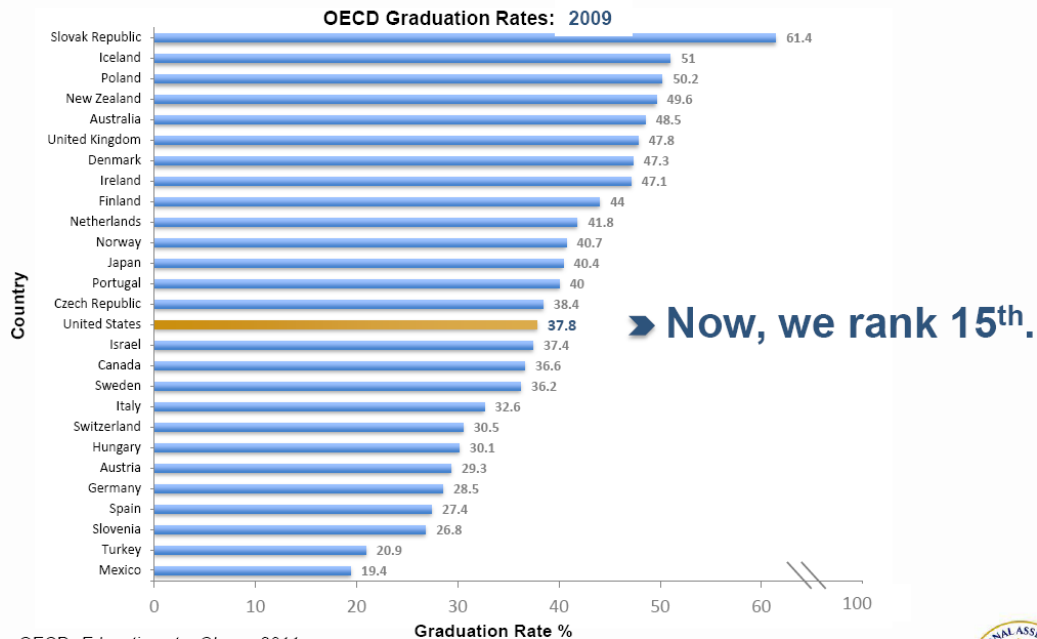


And the 8th grade science results.

As you can see, the pattern of U.S. performance is consistent across the grades and subjects.

The U.S. Has Fallen Behind Other Countries in College Graduation Rates

★ In 1995, the United States ranked 1st internationally in college graduation rates.



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The world of today and the good-paying jobs of tomorrow increasingly require education and training beyond high school. Where thirty or forty years ago, a high school diploma may have been sufficient to get a good job, this is no longer true.

The United States' global competitive advantage has always been innovation—technology, science, and engineering are the foundations of this innovation. Keeping our competitive edge requires an increasingly well-educated and well-trained population and work force.

Our global competitors know this. For example, Chinese President Hu recently said that his country intends not just to MAKE things for the world marketplace, but to CREATE new things for the world marketplace, and that the Chinese education system is focused on fostering innovation and creativity in its students.

Are Our Students Being Prepared to Help the Nation Compete in the Global Economy?

Low Achievement Has Far-Reaching Implications:

- ★ For the nation's prosperity and national security
- ★ For each individual's opportunity
- ★ For an engaged and informed society

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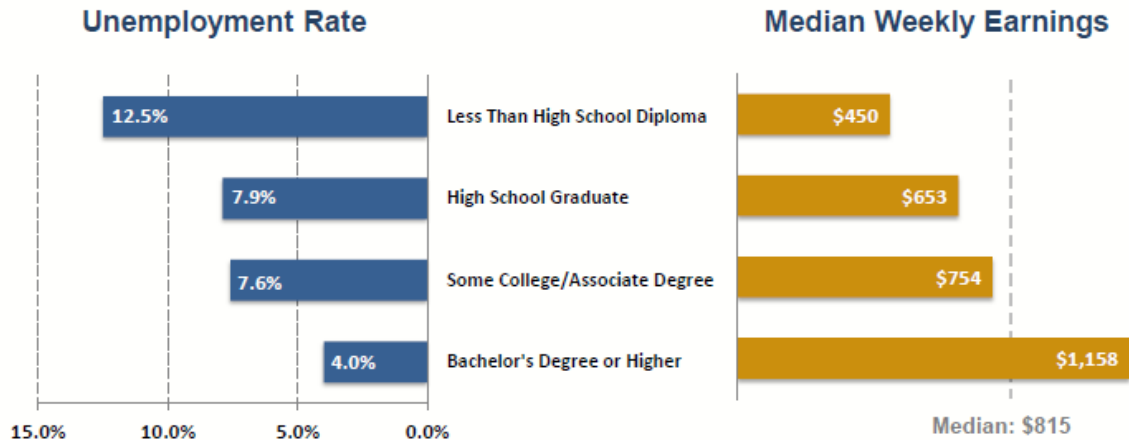
So I ask you--As parent and parent leaders, why should we care about overall achievement of the nation's students and about achievement gaps?

Do we believe that there is a connection between the quality of education of the workforce and the prospects for the nation's economic vitality and national security?

Do we believe that there is a connection between the opportunities created by the larger economy and the opportunities that will be available for our own children?

Do we believe that the complexity of today's public policy issues requires well-educated citizens to engage effectively in our democracy?

Education Level Is Related to Employment and Earnings



Source: U.S. Department of Labor, Bureau of Labor Statistics, April 2012

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Here are data for April 2012 from the Department of Labor that show a relationship between education and unemployment.

While the overall unemployment rate is 8.2%, it is 12.5% if you do not have a high school diploma; 7.9% if you graduated high school, 7.6 % if you have some college or significant job training beyond high school, and 4 % if you have a college degree or higher.

There is a similar relationship for education and median weekly earnings, from \$450 with no diploma to \$1,158 with a college degree or higher. This is in comparison to the overall median weekly wage, which was \$815.

Higher Levels of Education and Training Are Essential for Individual Prosperity

- ★ 17 of the 30 fastest-growing occupations require some form of postsecondary education or training.
- ★ Occupations with some of the most job openings—including booming healthcare occupations—usually require an associate degree or postsecondary vocational award.
- ★ Individuals without a high school diploma are about **three times** more likely to be unemployed than college graduates.
- ★ College graduates' median earnings are more than **2.5 times** greater than those of their peers without high school diplomas.

Source: U.S. Department of Labor, Bureau of Labor Statistics, 2011

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Education and job training beyond high school are essential in today's world. Forty or fifty years ago, a high school education may have been sufficient to get a good job to support oneself or raise a family—today this is no longer true.

The Nation's Demographics Are Changing

- ★ Since 1990, the nation's fourth-grade minority population in public schools has increased from approximately 25% to 46%. Demographers predict this trend will continue.

	1990	2003	2011
White	75%	60%	54%
Black	18%	17%	15%
Hispanic	6%	18%	22%
Asian/Pacific Islander	1%	4%	5%
American Indian/Alaska Native	1%	1%	1%
Two or More Races	#*	1%	2%

*Rounds to zero.

Source: The Nation's Report Card: Mathematics, 2011

Note: Detail may not sum to totals because of rounding.

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Little discussed today but very important, looking to the future, is the changing nature of the nation's demographics. This chart shows the change in the 4th grade student population over the last two decades.

As the chart shows, the nation's public schools are becoming increasingly diverse, with the 4th grade minority population in public schools growing from 27% in 1992 to 46% in 2011.

The Census Bureau recently reported that in 2011—slightly more than 50% of the babies born in the U.S. were non-white.

Of course, the demographics of today's young children reflect the coming demographics of the adult population and thus, the demographics of the leaders and workers of tomorrow, who will be managing and contributing to the nation's economy and politics, paying taxes, and contributing to social security.

Racial/Ethnic Disparities Have Far-Reaching Consequences

- ★ Hispanic and African-American students are at elevated risk of **dropping out** and requiring academic **remediation** in postsecondary institutions.
- ★ Hispanic and African-American workers are disproportionately **unemployed**.
- ★ Their average wages are lower than those of white workers.
 - Hispanic workers earn an average of **\$226** less per week than white workers.
 - African-American workers earn an average of **\$158** less per week than white workers.

Source: U.S. Department of Labor, Bureau of Labor Statistics, April 2012

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It is obvious that the moral imperative for ensuring a quality education for every child is equally balanced by the economic imperative for doing so.

Closing achievement gaps is not just the right thing to do, it is in the nation's interest and each individual's interest.

A Solid Education Is Essential for Citizens to Weigh Important Public Issues in a Democracy

★ *“I believe that we are at a critical point in our nation’s history.... We cannot afford to continue to neglect the preparation of future generations for active and informed citizenship.”*

– The Honorable Sandra Day O’Connor

★ *“...Success in educational attainment....must be gauged by how well the next generation of Americans is prepared to solve collective problems creatively and collaboratively.”*

– U.S. Department of Education

Sources: Sandra Day O’Connor on NAEP 2010 Civics results; U.S. Dept. of Education, “Advancing Civic Learning and Engagement in Democracy,” 2012

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The Nation’s Founders believed that educated citizens were a necessity for a vibrant democracy.

In today’s complex, inter-related world, this is ever-so- true.

The ability to separate fact from opinion, understand the principles of science and technology and their impact on public policy, and gather valid information independently are nurtured through a good education. And these increasingly are examples of necessary skills to be an effective citizen in a democracy.

“ We must simultaneously raise the achievement of all students, while closing gaps in achievement between different groups of students.... We cannot allow this to continue or our nation will pay the price socially and economically.”

– U.S. Secretary of Education Arne Duncan



Secretary of Education Arne Duncan has stressed the critical importance of improving achievement and closing gaps for the nation’s social and economic well-being.

What Is The Nation's Report Card/NAEP?

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Please raise your hands—how many of you in the room today have heard of the Nation's Report Card, or the National Assessment of Educational Progress, or NAEP?

How many of you have actually seen a NAEP report—before opening your packets of course!

How many have used NAEP data or other NAEP resources?

As we explore together how NAEP might be useful to parent leaders, let's start with some background.

NAEP: National Assessment of Educational Progress

The Gold Standard ★ The Truth-Teller



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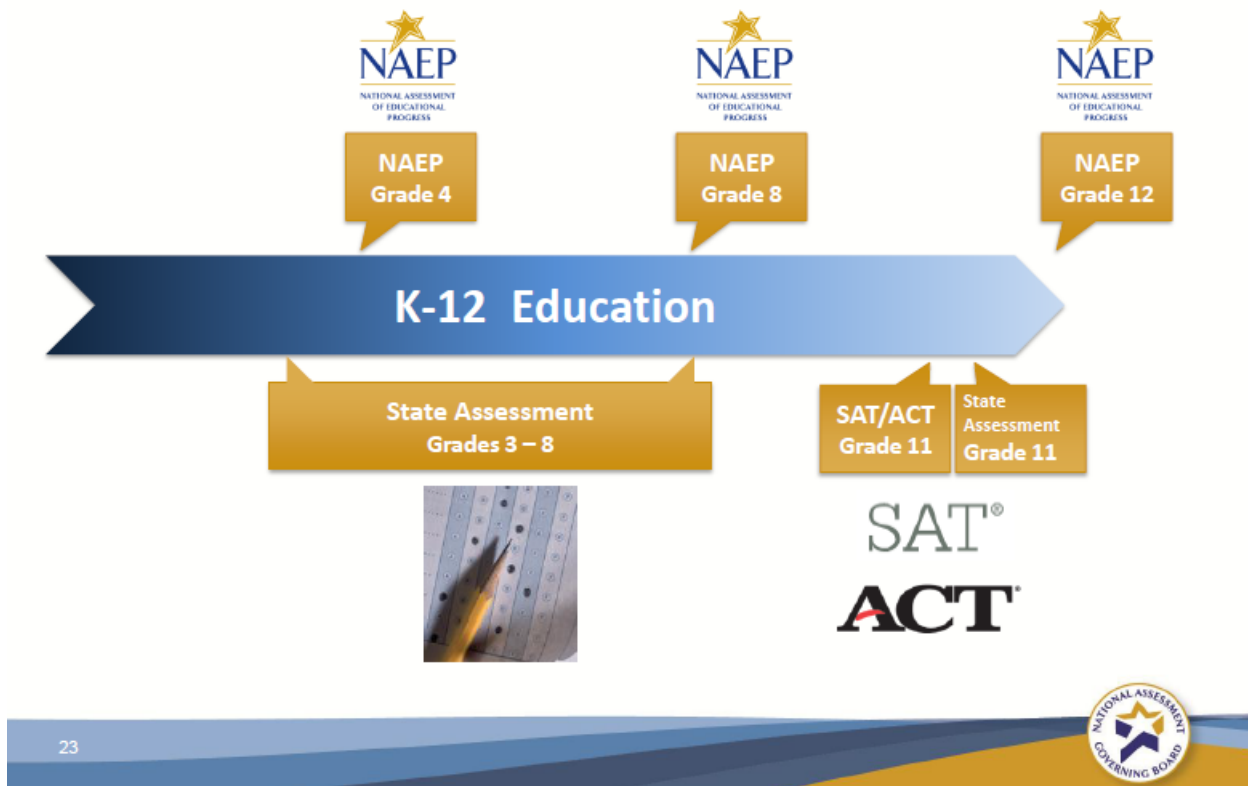


NAEP has been in existence since 1969. It is the only continuing source of national and state-comparable data on student achievement.

NAEP is highly regarded for the quality and integrity of the information it provides.

Some refer to NAEP as the “truth teller” -- for its service as an independent, trusted verifier of state-level student achievement over time.

The Assessment Landscape



This slide shows how NAEP fits into the assessment landscape.

Looking at the K-12 education years, you are probably most familiar with the assessments under the arrow:

- your state testing program, which under No Child Left Behind, provides individual student results in reading and math for grades 3 through 8, and once in the high school years, almost universally by grade 11
- and those important college admission tests your children may take, like the ACT or SAT, which also provide individual student scores

NAEP, on the other hand, tests only at grades 4, 8 and 12 and provides group results—data for the nation, for states, and for 21 urban districts.

It is important to keep in mind that NAEP does NOT provide individual student scores, NAEP does NOT provide school-level scores, or scores for the vast majority of school districts.

This difference is important for our conversation today, for if NAEP doesn't provide information about your child, how can it be useful to parent leaders? We will come back to this question.

What Does NAEP Measure?

Assesses what students know and can do:	
SUBJECTS	GRADES
Reading, Mathematics, Writing, Science, U.S. History, Civics, Geography, Economics, the Arts, Technology and Engineering Literacy, Foreign Language	4, 8, and 12
RESULTS	
Student Achievement Data for the – Nation – States – 21 Urban Districts	



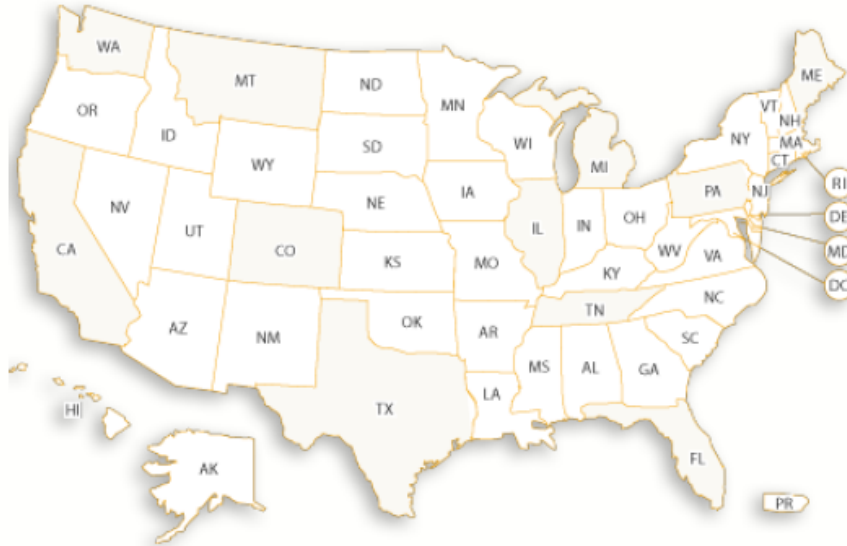
NAEP tests a wide range of subjects in addition to reading and math: writing, science, U.S. history, civics, geography, and the arts, to name a few.

We are developing a very exciting, innovative assessment of technology and engineering literacy, planned for administration at the 8th grade in 2014.

I've already mentioned that NAEP tests at grades 4, 8 and 12 and reports for the nation, states, and 21 urban districts.

Who Does NAEP Test?

- ★ NAEP tests representative samples of students from **all 50 states**, the District of Columbia, Puerto Rico, and Department of Defense schools.



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In addition to national results, NAEP is the only source of student achievement that provides fair, accurate comparisons across states. This includes the District of Columbia, Puerto Rico, and the Department of Defense schools.

NAEP stands for National Assessment of Educational Progress—the “educational progress” part of the name means that NAEP reports trends over time.

NAEP is the **ONLY** source of long-term trend data for states going back about 20 years. Not even state testing programs provide trend data this far back.

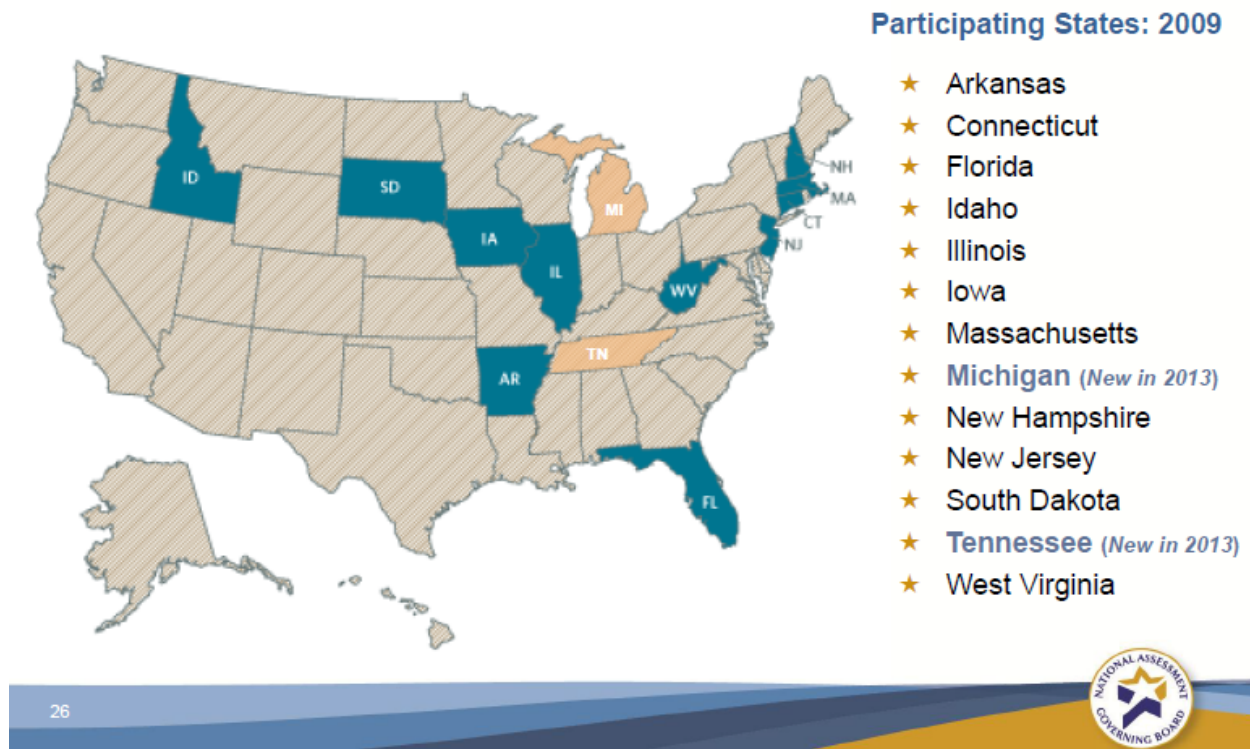
Participation in state NAEP was completely voluntary from 1990 to 2002, but in 2003 No Child Left Behind required states to participate in grade 4 and 8 reading and math as a condition to receive Title I funds—almost all states participated voluntarily, but all states are in now.

Participation in other subjects and grades is strictly voluntary.

NAEP is designed to minimize burden to students and schools. Testing time is about 50 minutes for each student randomly drawn for the school sample and the test is administered by a NAEP contract professional, so there is very little work needed from school staff.

12th Grade NAEP: Participating States

★ In 2009, NAEP tested 12th graders in 11 pilot states.



While participation in state NAEP in reading and math is required at grades 4 and 8 under NCLB, participation at grade 12 is voluntary. In 2009, as a part of a pilot, 11 states volunteered to get the first-ever 12th grade results.

These states wanted to measure student achievement at the very end of high school. In 2013, two more states will be added.

It is important to note that NAEP is unique in providing 12th grade results at the state and national level.

State assessment programs generally complete testing by 11th grade for most students. The ACT and SAT college admission test results are not nationally representative and also are taken before grade 12 by the vast majority of students.

Thus, NAEP is the only source of data at the end of K-12 schooling, the transition point to adult pursuits--postsecondary education and training.

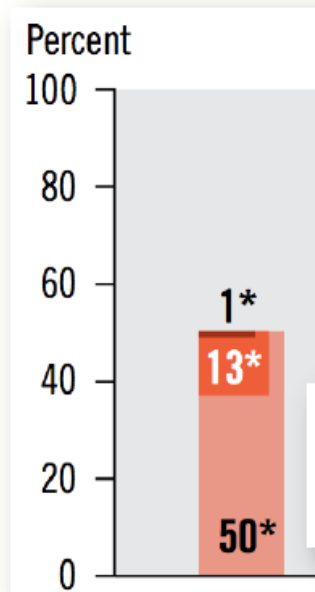
NAEP Trial Urban District Assessment (TUDA): Participating Districts

★ NAEP tests students in **21 urban districts** across the country.



21 Urban districts participate to be able to compare their results on a common measure. If your child attends one of these districts, how might the NAEP data be useful to you?

How Does NAEP Report?



Achievement Levels:

Performance standards for reporting NAEP results

- ★ *Advanced*
- ★ *Proficient*
- ★ *Basic*

■ % at *Advanced*
■ % at or above *Proficient*
■ % at or above *Basic*



One of the primary ways NAEP reports is by achievement levels—these are performance standards for reporting NAEP results. These performance standards are intended to help answer the question—how good is “good enough” on NAEP?

There are three levels that are set—Basic, Proficient, and Advanced. We also report on the percentage of students in the range below Basic.

What is *Proficient* on NAEP?

Proficient on NAEP denotes solid academic performance, competency over challenging subject matter, and the ability to apply knowledge to real-world situations.

★ NAEP's standard for ***Proficient*** is very rigorous.

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As the slide indicates—Proficient on NAEP means solid academic performance, competency over challenging subject matter, and the ability to apply knowledge to real-world situations.

As you saw earlier in the slide that looked at state standards arrayed on the NAEP scale, Proficient on NAEP is very rigorous.

What Can a Student Performing at or Above Proficient Do?

Reading, Grade 4

Locate and interpret information in support of the text idea:

The article describes male emperor penguins as “tough.” Give two pieces of information from the article that show that male emperor penguins are tough.

Daddy Day Care

Antarctica's ultimate stay-at-home dads

by Ruth Musgrave

When you think “tough,” you may think of sharks, grizzly bears, or professional wrestlers, but you probably don’t think of male penguins. Emperor penguins may not look it, but the males are tough enough to take on the deadly Antarctic winter and survive.

And they do it—without eating—while taking care of the eggs! When other animals head north in March to avoid the Antarctic winter, emperor penguins head south.

Antarctica is surrounded by a huge mass of sea ice in the winter. This ice floats on the ocean in the southernmost part of the Earth. Harsh and frigid, it is here where emperor penguins choose to mate and lay their eggs.

All the other animals, even other penguins, leave months before the Antarctic winter sets in. The only living things left above the ice are the emperors and the humans watching them.

(Excerpt of reading passage)

Sample student response:

They stay with an egg for a whole month without food! During the winter, the nearest open water could be 50 mi from the rookery.

Source: NAEP Question Tool: Item Maps, 2011

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One way of understanding what Proficient on NAEP means is to look at performance on NAEP questions.

Here is a grade 4 reading question. Students read a passage and then answer a series of questions about the passage.

Some things to point out—depending on the grade and the measurement objectives, reading passages can be 200-1,500 words in length. Passages are drawn from texts students are likely to encounter, not just created for the test. Texts are both fiction and non-fiction, literary and informational.

Students are asked not only to locate information or identify the main idea, but to demonstrate higher order thinking, such as making inferences, interpreting text, and critiquing and evaluating the text. For, for example, students may be asked to draw conclusions about the author’s purpose and how the author organized the text.

In this example, students are asked to locate information from the passage to interpret an idea in the text.

Note that these 4th grade students are asked to write their own answer, NOT choose from among one of several answers that are provided, where guessing is possible. NAEP does use multiple choice items, but about half of the testing time is devoted to types of questions where students provide the answers.

Are your 4th graders exposed to these kinds of questions? Should they be?

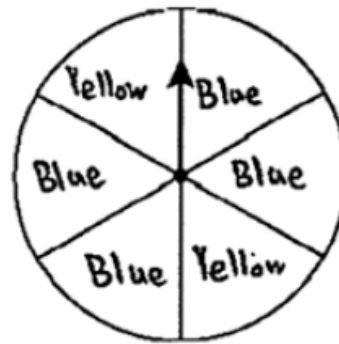
What Can a Student Performing at or Above Proficient Do?

Mathematics, Grade 8

Label a spinner for a given probability:

The circular spinner shown is divided into 6 congruent sectors. The sectors are yellow or blue.

Label each of the sectors either yellow (Y) or blue (B) so that the probability of spinning the arrow once and landing on yellow is $\frac{1}{3}$.



$$\frac{1}{3} = \frac{2}{6}$$

Sample correct student response

Source: NAEP Question Tool: Item Maps, 2011

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Here is a grade 8 math question that involves probability. This is an example where the student has to demonstrate understanding of mathematical concepts—for example, probability, congruence, and equivalence of fractions—apply those understandings to solve the problems, and show their work in supplying the answer. There is no guessing in questions like these.

Does this seem like something your 8th graders should be able to do?

What Does NAEP Say About Student Achievement and Achievement Gaps?

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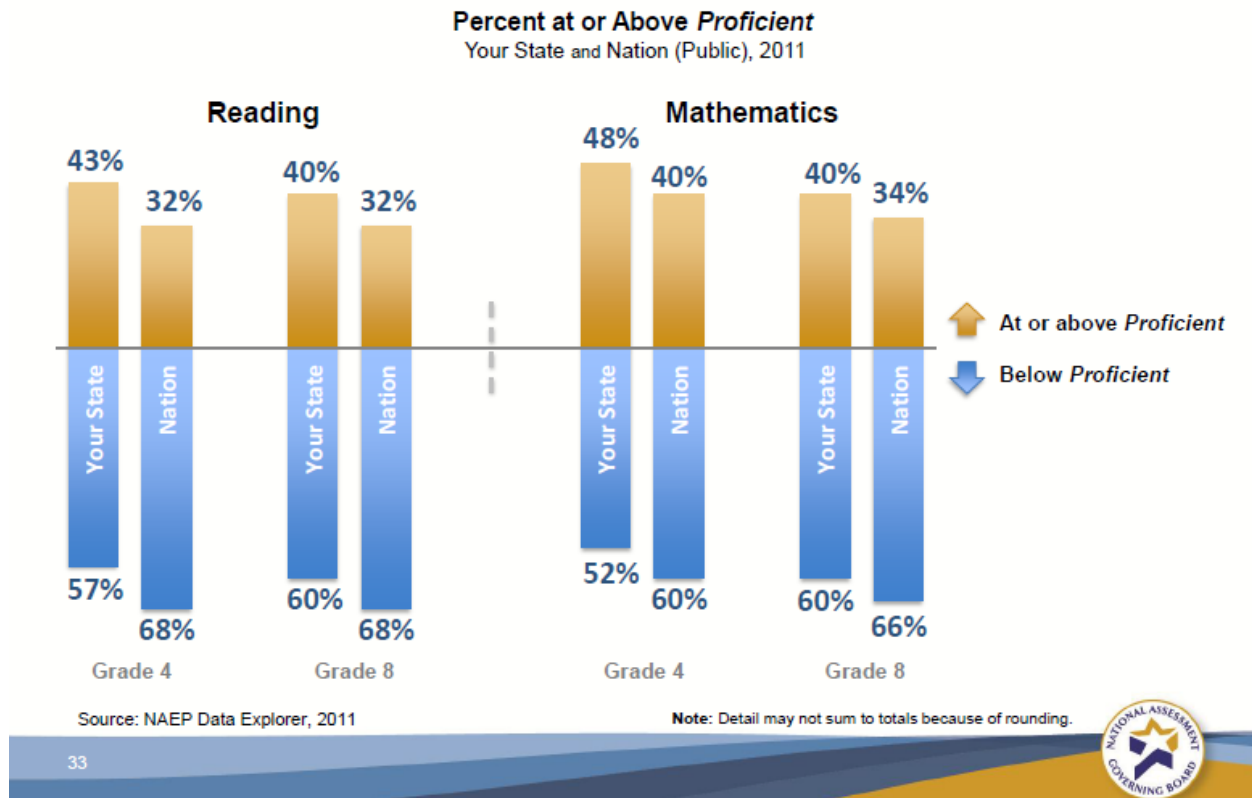


At the beginning of the presentation, I showed you national NAEP results.

Now I am going to show you what state and district results look like.

These are real data for a state and one of our urban districts. I am going to refer to them as Your State and Your District because the focus is on sharing what you can get from NAEP—we are not focusing on any particular state or district today.

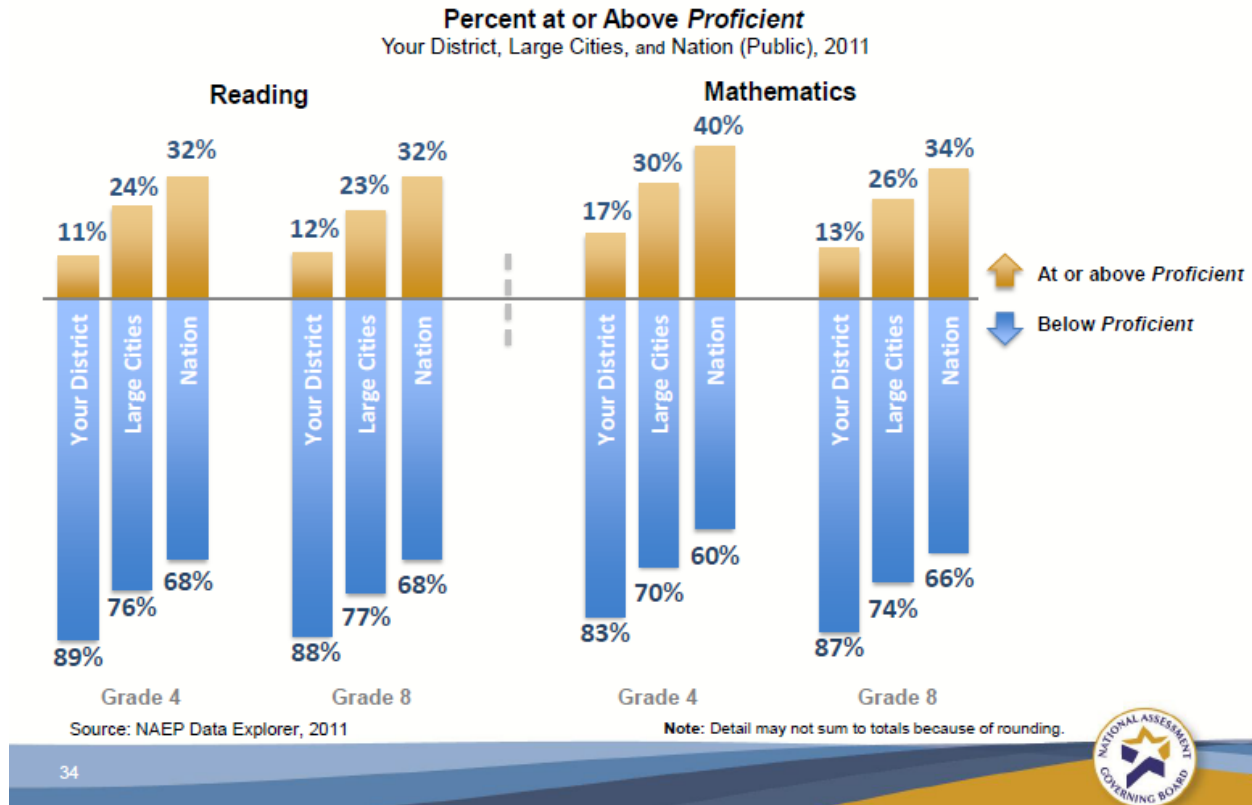
What Percent of Students in Your State Are Performing at or Above *Proficient* on NAEP? Is This *Good Enough*?



Here is an example comparing a state to the nation.

So—on the one hand, the state is performing better than the nation in reading and math at grades 4 and 8, but on the other hand—all of the state percentages are less than 50%—so the question for you is—Is the performance of Your State good enough?

What Percent of Students in Your District Are Performing at or Above *Proficient* on NAEP? Is This *Good Enough*?



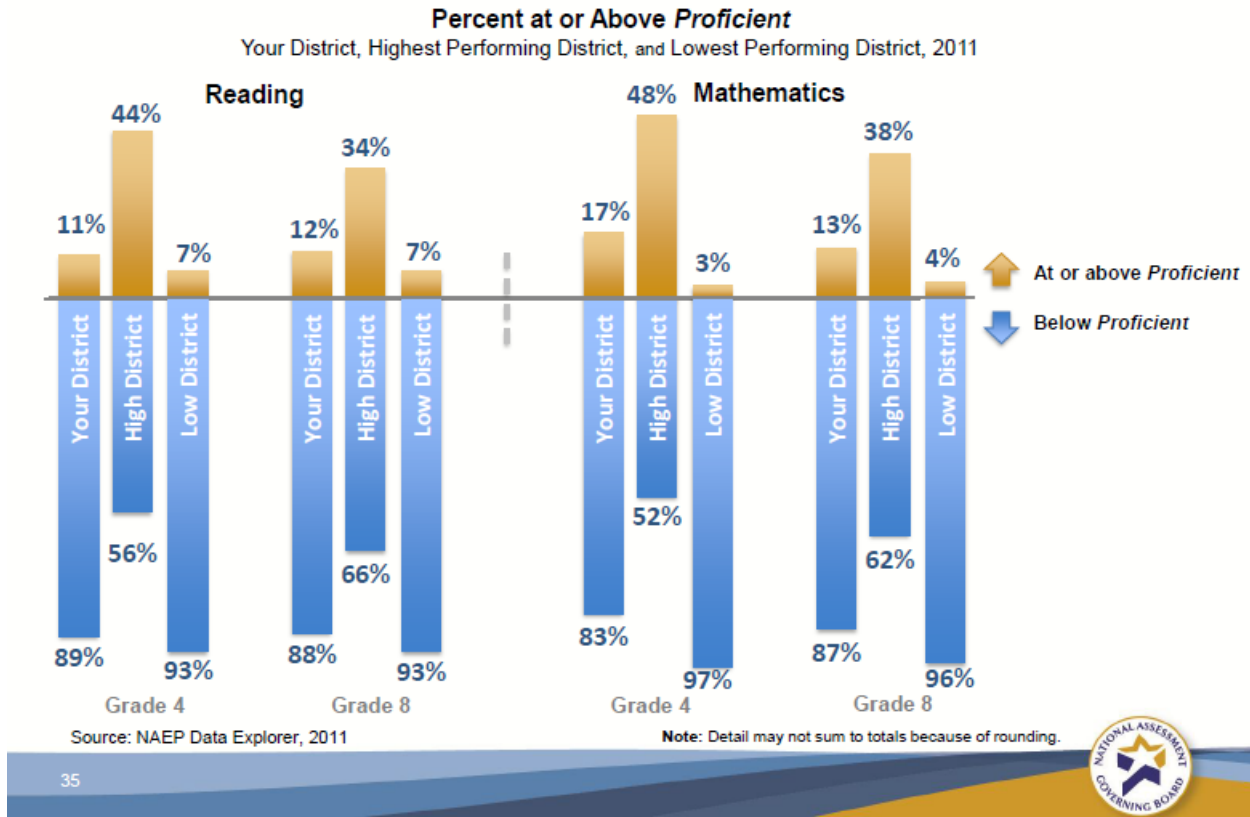
This slide shows performance in Your District and compares it to other large cities and to the nation.

Reading at grade 4 and 8 is on the left; math is on the right.

For each cluster of bars, the bar on the left is Your District, then a comparison with Large Cities, and then with the nation.

What questions come to mind about performance in Your District looking at these results?

How Does Your District Compare With the Highest and Lowest Performing Districts?



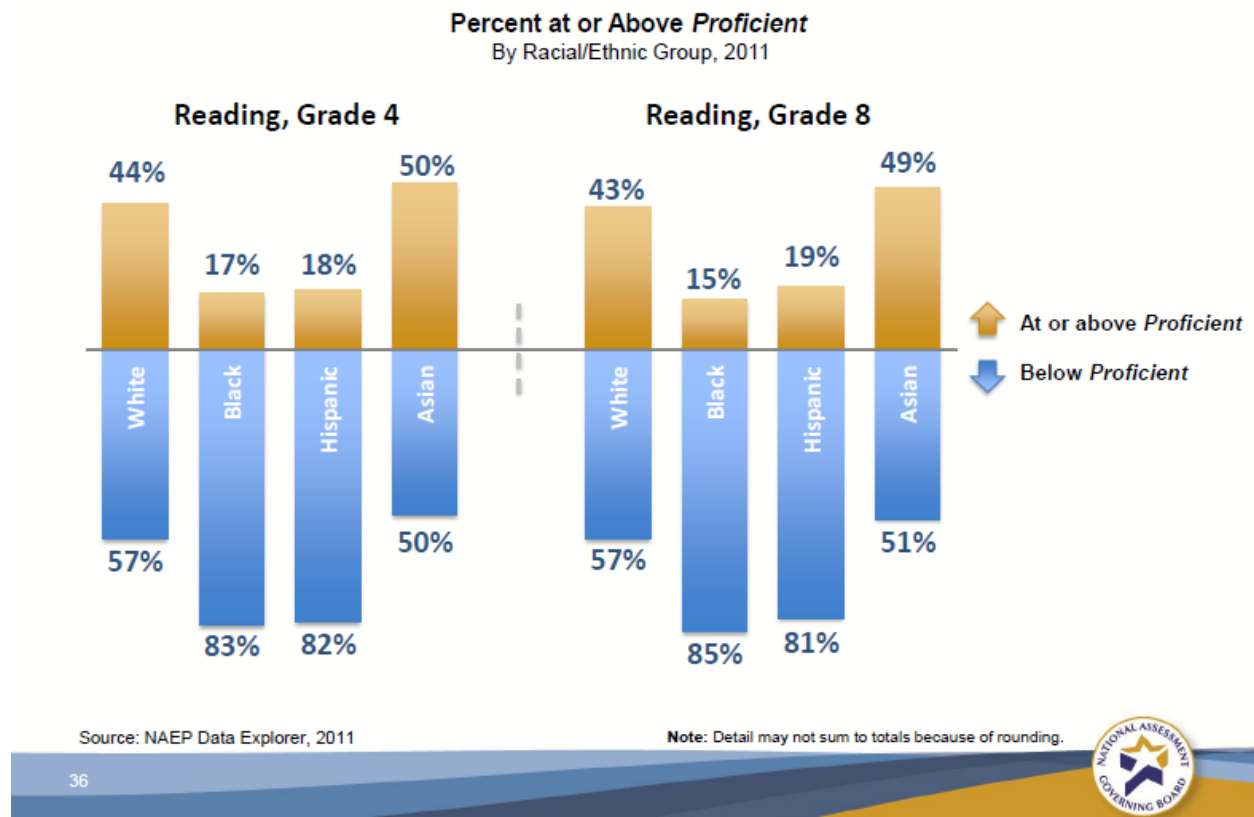
This chart shows how Your District compares to the highest and lowest performing among the 21 urban districts.

Again, in each cluster, your district is the bar on the left.

Looking at the results, would you want to find out more about education policies and practices in the highest performing district?

Of course, similar comparisons to high and low performers are possible at the state level.

Unacceptable Achievement Gaps Exist Nationwide

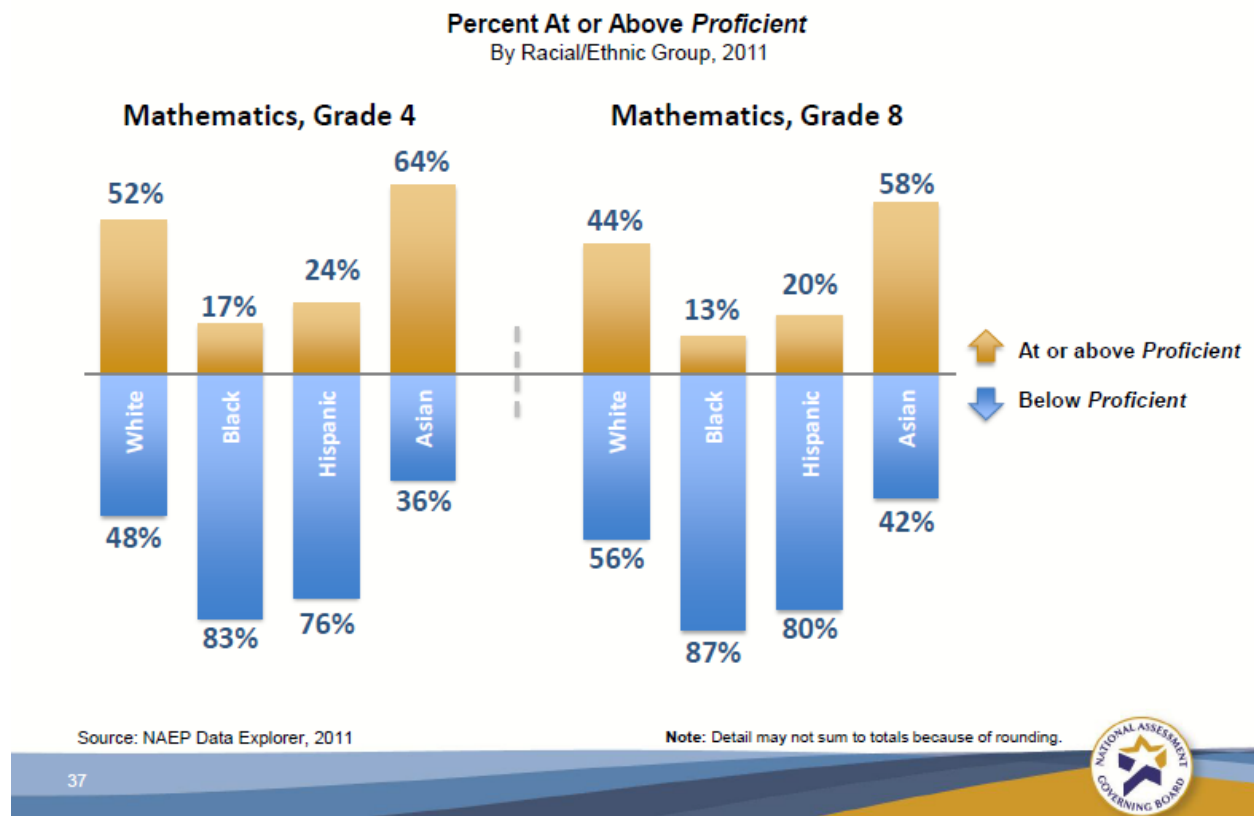


NAEP provides results by race, ethnicity, gender, and eligibility for the national lunch program as a measure of income status. It also provides results for students with disabilities and English language learners, and by gender.

In this slide we see the size of the achievement gaps by race/ethnicity for reading at grade 4 and 8.

At each grade, from left to right, the bars are for white students, African-American students, Hispanic Students and Asian students.

Unacceptable Achievement Gaps Exist Nationwide

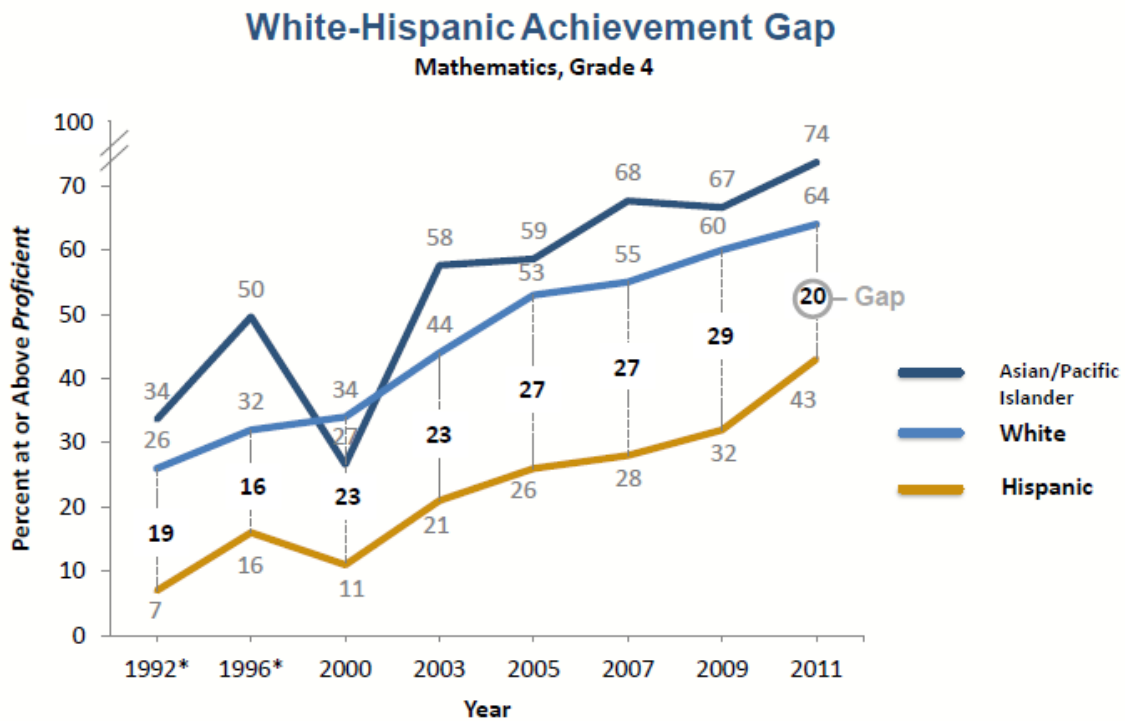


Here we see the achievement gaps for mathematics at grades 4 and 8—for students at or above Proficient.

We see that unacceptable achievement gaps exist nationally and we have started to examine what this means for the nation's future.

What are the achievement gaps in Your State?

What Are the Achievement Gaps in Your State?



Source: NAEP Data Explorer, 2011

*Accommodations were not permitted

Note: Gaps are calculated based on differences between unrounded figures.



First, let's look at the White-Hispanic achievement gap.

This slide shows trends over time in grade 4 math achievement by race/ethnicity. In each year, it shows the percent at or above Proficient for white students and for Hispanic students.

The number between the two lines shows the size of the achievement gap between white and Hispanic students and how it changes over time.

The trend line starts in 1992 and continues to 2011.

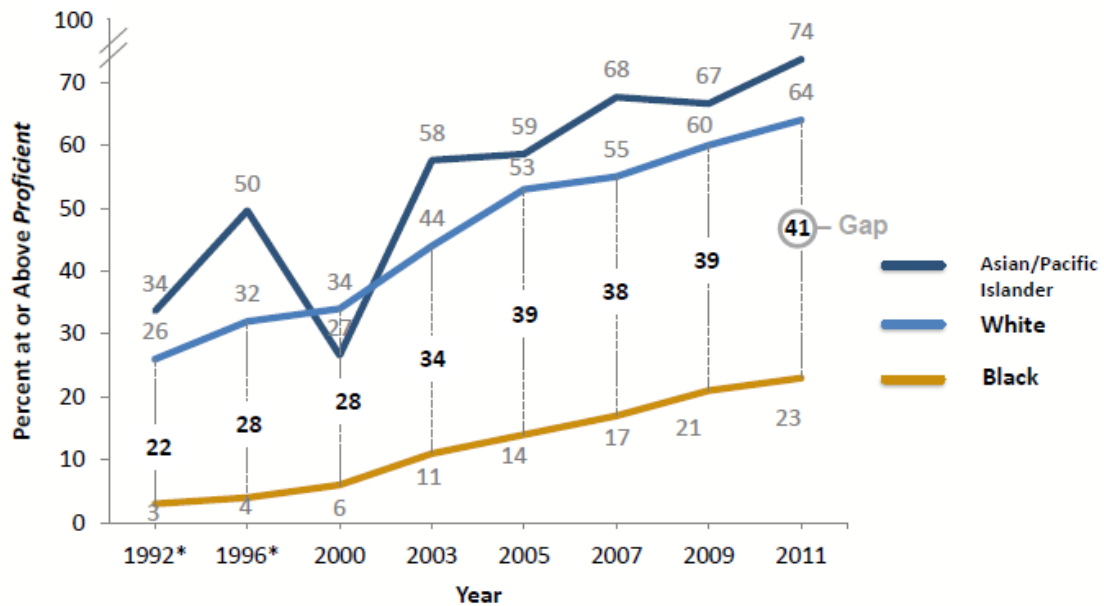
As you can see, achievement has improved significantly over the years for both groups. This is a good thing.

But the size of the achievement gap in 2011 remains about the same as it was in 1992. The size of the achievement gap was 19 percentage points in 1992 and 20 percentage points in 2011.

Although the typical comparison is to white student achievement, we are adding Asian/Pacific Islander students to this analysis.

What Are the Achievement Gaps in Your State?

White-Black Achievement Gap Mathematics, Grade 4



Source: NAEP Data Explorer, 2011

*Accommodations were not permitted

Note: Gaps are calculated based on differences between unrounded figures.



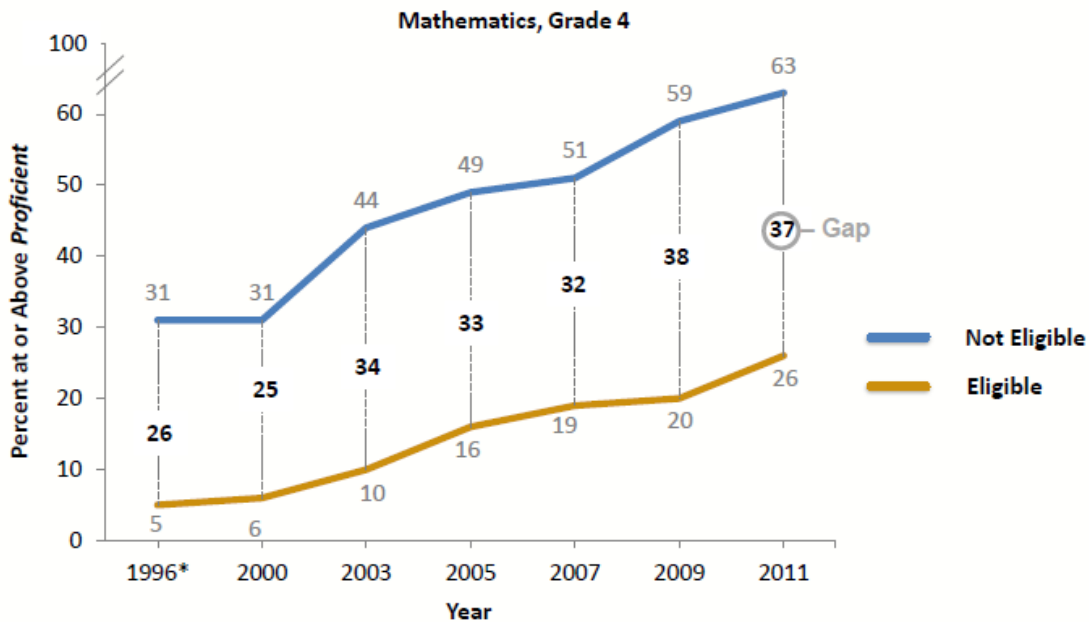
Here we look at the achievement gap for African-American students.

While there have been achievement gains in math at grade 4, the size of the gap has grown from a 22 percentage point difference to a 41 percentage point difference.

What Are the Achievement Gaps in Your State?

Income Level Achievement Gap

By National School Lunch Program Eligibility



Source: NAEP Data Explorer, 2011

*Accommodations were not permitted

Note: Gaps are calculated based on differences between unrounded figures.



Here is another achievement gap analysis—this time by eligibility for the national lunch program, as an indicator of low income status. The gold line represents students who ARE eligible for the free lunch program; the blue line represents students who are NOT eligible.

While we see improvement for both groups, the size of the gap is growing—from a 26 percentage point difference to a 37 percentage point difference.

So let's take stock. What do the patterns on three slides about 4th grade gaps suggest about performance at the end of 8th grade?

What do they suggest about preparedness for college and job training by the end of 12th grade?

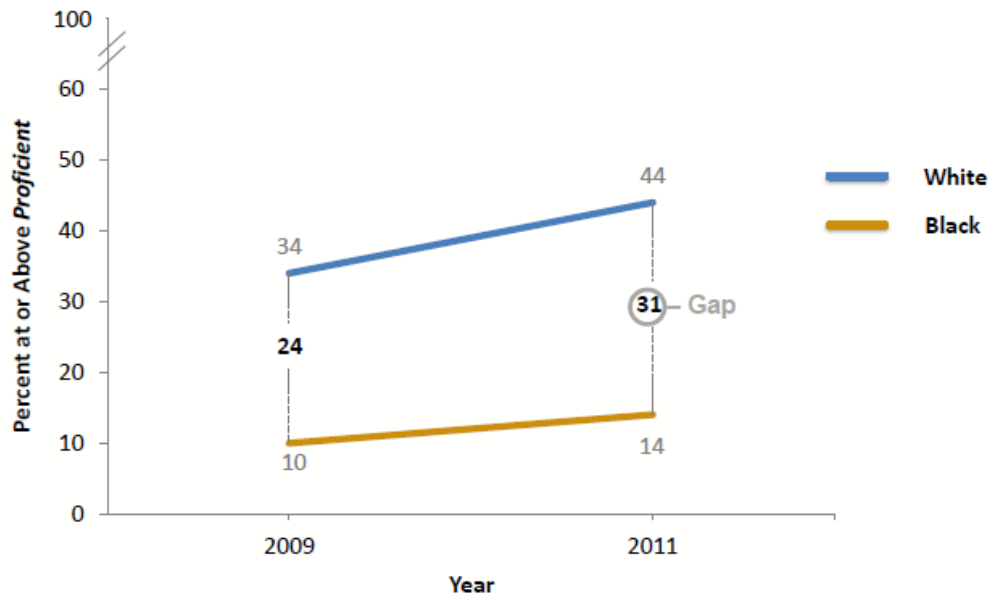
What do they suggest about the potential to fill jobs in high-paying, high trajectory occupations in Your State?

What do they suggest for the future of Your State's economy, employment and job outlook?

What Are the Achievement Gaps in Your District?

White-Black Achievement Gap

Mathematics, Grade 4



Source: NAEP Data Explorer, 2011

Note: Gaps are calculated based on differences between unrounded figures.



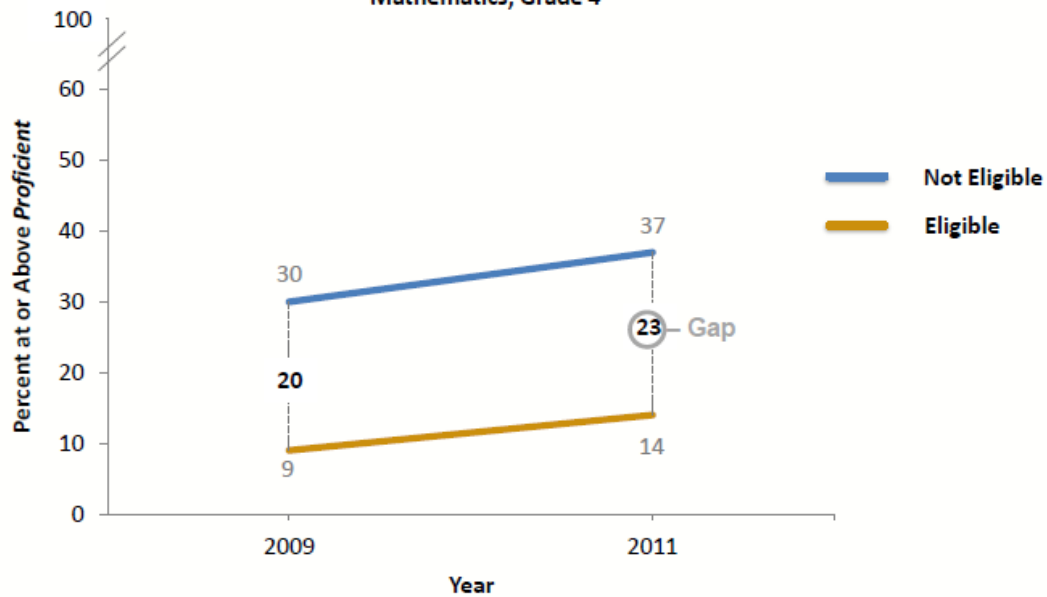
Here we provide similar data for Your District—asking you to think about the same questions we just raised.

What Are the Achievement Gaps in Your District?

Income Level Achievement Gap

By National School Lunch Program Eligibility

Mathematics, Grade 4



Source: NAEP Data Explorer, 2011

Note: Gaps are calculated based on differences between unrounded figures.



Is NAEP Relevant to Parent Leaders?

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Now that we have taken you through NAEP 101, let's explore NAEP's relevance for parent leaders.

NAEP: Common Yardstick Across States and Districts

- ★ NAEP is the **ONLY** “apples to apples” comparison of achievement in Your State/Urban District to other states/urban districts.
 - Your State’s standards and assessments differ from other states’.
 - The meaning of “**Proficient**” in Your State differs from “**Proficient**” in other states.
- ★ NAEP allows parents to compare overall achievement, achievement gaps, and the rigor of Your State’s standards to other states’.
- ★ NAEP is the **ONLY** source of almost 20 years of trend data for state academic achievement in reading and math at grades 4 and 8.

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This slide lists some of NAEP’s major characteristics.

Is it important to know how Your State compares with other states in terms of overall achievement, closing gaps, and rigor?

Is it important to be able to see changes over time?

How can parent leaders use this information?

NAEP Looks at Course Rigor

- ★ NAEP provides information on the types of courses students take.
- ★ NAEP compares coursetaking by race/ethnicity.
- ★ NAEP looks at the relationship between coursetaking and performance on NAEP.

A more rigorous curriculum, with higher-level math and science courses, is related to greater achievement.

Source: 2009 NAEP High School Transcript Study

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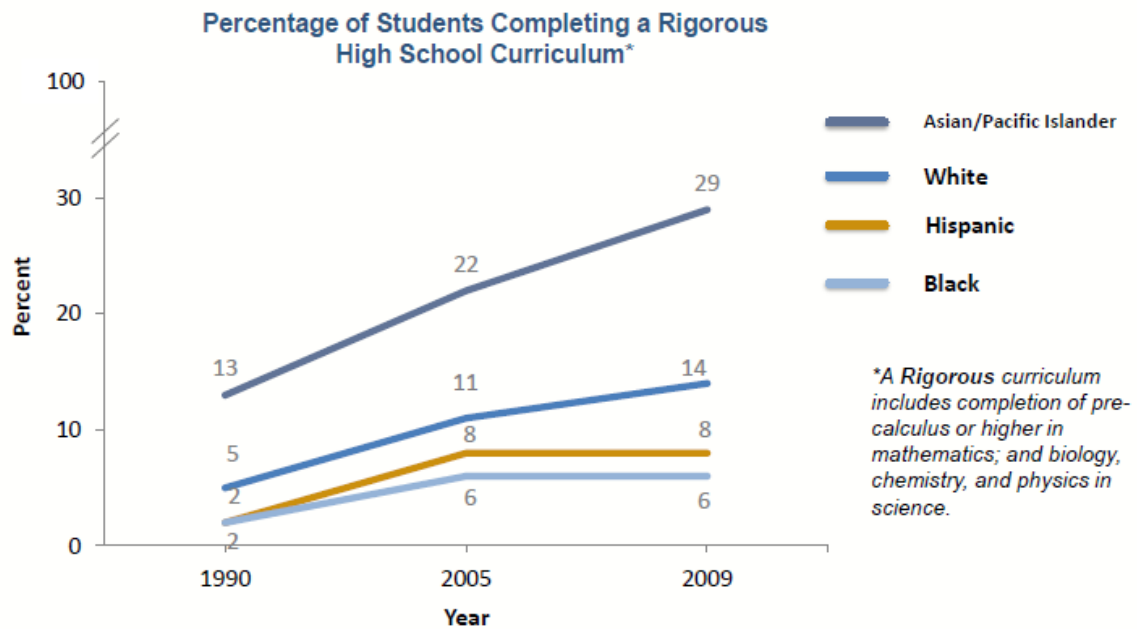


Rigorous coursework is related to higher student achievement.

How do you know the level of rigor in your schools?

What is your basis of comparison?

NAEP Reveals Racial/Ethnic Gaps in Advanced Coursetaking in High School



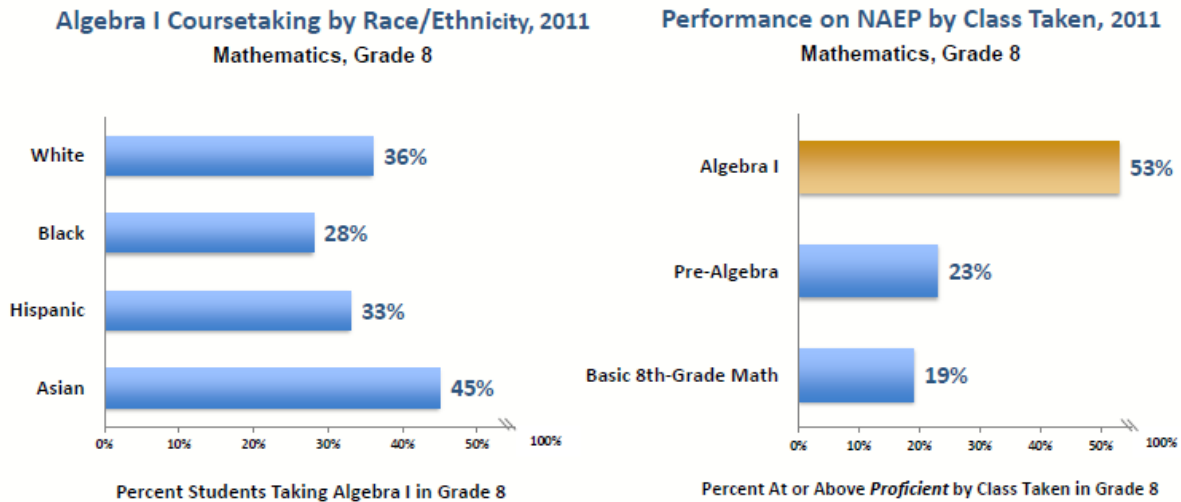
Source: 2009 NAEP High School Transcript Study

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NAEP has documented differences in rigorous course-taking patterns by race/ethnicity in high school—but even with that—are the absolute levels of rigorous course-taking good enough?

NAEP Reveals Racial/Ethnic Gaps in Advanced Coursetaking in Middle School



Source: The Nation's Report Card: Mathematics, 2011

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Here we see significant differences by race/ethnicity in the patterns of Algebra 1 course-taking in middle school—

Here is how it correlates with achievement...the more rigorous the coursework, the higher the percentage Proficient on NAEP.

NAEP Serves as a Reference Point for International Comparisons

★ In 2011, NAEP was linked to:

- **TIMSS** (Trends in International Mathematics and Science Study)
- **PIRLS** (Progress in International Reading Literacy Study)

★ This will allow states to compare their performance in reading, math, and science to countries around the world.



In 2011, the National Assessment Governing Board called for a special study linking NAEP with international assessments in math, science, and reading.

The linking study will translate state NAEP scores into their equivalents on the international tests.

Through participating in NAEP, states will be able to see how their student performance compares with student performance in countries like China, Japan, Germany and England.

We expect to report the results at the end of 2012.

What Can Parent Leaders Do About Improving Achievement and Closing Gaps?

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This is our key question for you.

Become Informed to Ask Critical Questions

- ★ Is student achievement *good enough*?
- ★ How can we do more?

NAEP data and resources are one way that parent leaders can become informed to ask questions about student achievement.

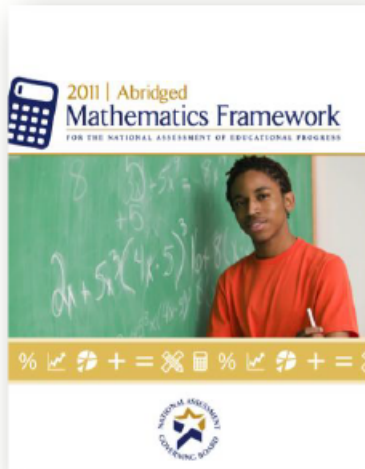


We suggest that NAEP is a resource to help parent leaders ask important questions.

We stress here that NAEP is but one way that parents can become informed to ask questions.

We are not suggesting that NAEP be followed, only that it can be used as a basis for starting a productive conversation with local education leaders about student achievement and closing achievement gaps.

NAEP Frameworks: Detail what each NAEP subject area assessment measures



- **Number Properties and Operations** – including computation and understanding of number concepts
- **Measurement** – including use of instruments, application of processes, and concepts of area and volume
- **Geometry** – including spatial reasoning and applying geometric properties
- **Data Analysis, Statistics, and Probability** – including graphical displays and statistics
- **Algebra** – including representations and relationships



NAEP frameworks define what NAEP measures at grades 4, 8, and 12 and how it will be measured. The frameworks are the “blueprint” for the tests.

I talked a little about what NAEP measures and how it is measured in describing the test questions at the beginning of this presentation.

Here you see the abridged version of the NAEP test framework for math. Some of your packets have copies of the abridged version of the math framework.

Others have copies of the abridged version of the reading framework.

The complete frameworks are available on-line.

How can NAEP frameworks help parent leaders?

NAEP Frameworks:

Detail what each NAEP subject area assessment measures

Possible Questions:

- ★ *Are students taught algebra 1 or pre-algebra by eighth grade?*
- ★ *Are students expected to read and analyze a range of texts, including a wide array of literary and informational texts?*



The Governing Board develops the NAEP frameworks to define what NAEP should measure. This is done through an 18 month process involving hundreds of experts and educators.


NAEP frameworks are the highest download publication from the Governing Board's web site.

The Common Core State Standards for English Language Arts document refers to the NAEP reading and mathematics frameworks as their foundation.

NAEP frameworks guide assessment development—they are not designed nor intended to be a curriculum; however, becoming familiar with what NAEP measures can help raise questions about what is taught.

NAEP Questions Tool:

Lets you view questions to see what students are know and can do on NAEP, and compare how different states and districts performed



Questions Tool >
Search, sort, and print sample NAEP questions.

Audrey used only the number tiles with the digits 2, 3, 4, 6, and 9. She placed one tile in each box below so the difference was 921.

Write the numbers in the boxes below to show where Audrey placed the tiles.

—		
<hr/>		
9	2	1

Correct answer:

9	6	3
—	4	2
<hr/>		
9	2	1



Thousands of released NAEP questions are available on-line, along with data showing performance by race/ethnicity and income, and by state and district.

There is a brochure on how to use the Questions Tool in your packets.

I will also provide a brief overview for accessing this and other NAEP tools in a few minutes.

NAEP Questions Tool:

Lets you view questions to see what students are expected to know and be able to do, and compare how different states and districts performed

Possible Questions:

- ★ *Do our assessments use a variety of question formats, such as multiple choice and open-ended questions?*
- ★ *How well did our state/district do on open-ended questions?*
- ★ *Do our reading assessments measure different thought processes, such as locating information in texts, making interpretations across two different texts, and evaluating author's purpose?*



The NAEP questions tool is another potential resource for starting conversations about teaching and learning. Again, not that what NAEP does is necessarily what should be done in Your District or Your State, but it provides a means to compare and reflect on what IS done locally and for starting a conversation about what is the same, what is different, and what are the reasons.

The Nation's Report Card:

Provides achievement data for the nation, states, urban districts, and demographic subgroups



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NAEP reports in all tested subjects are available on-line to download and print from your computer.

In your packet is a sample printed report—math if you have the math framework; reading if you have the reading framework.

Most of these are state and national reports, a few of you have Trial Urban District reports.

We hope that you will become more and more familiar with NAEP data.

The Nation's Report Card:

Provides achievement data for the nation, states, urban districts, and demographic subgroups

Possible Questions:

- ★ *Are education leaders familiar with The Nation's Report Card and our state's/district's performance on NAEP?*
- ★ *Can I host an information session to share what I have learned about The Nation's Report Card?*



Here are some actions or questions to consider.

NAEP Data Explorer:

Lets you create state and district tables and charts of assessment data from every NAEP exam to compare subgroup performance and see achievement trends over time



MAIN NDE 1. Select Criteria 2. Select Variables 3. Edit Reports

STEP 1: Select criteria from each drop-down menu to begin. Additional options related to your selections, jurisdictions, and years based on available data.

Subject: Mathematics Grades: Grade 8

Category	Sub Category	Measure	All Years	2011	2009
NAEP Scale Scores	Mathematics Scales	<input checked="" type="checkbox"/> Composite scale details			
		<input type="checkbox"/> Algebra scale details			
		<input type="checkbox"/> Data analysis, statistics, and probability scale details			
		<input type="checkbox"/> Geometry scale details			
		<input type="checkbox"/> Measurement scale details			
		<input type="checkbox"/> Number properties and operations scale details			

Group	Jurisdiction	All Years	2011	2009
	<input type="checkbox"/> Kentucky			
	<input type="checkbox"/> Louisiana			
	<input type="checkbox"/> Maine			
	<input checked="" type="checkbox"/> Maryland			
	<input type="checkbox"/> Massachusetts			

Also in your packets is a brochure on how to use the NAEP Data Explorer.

NAEP Data Explorer:

Lets you create state and district tables and charts of assessment data from every NAEP exam to compare subgroup performance and see achievement trends over time

Possible Questions:

- ★ *What are the achievement gaps in our state/district? What are we doing to address these gaps?*
- ★ *Has the percentage of students performing at or above Proficient on NAEP changed over time? What might explain this?*



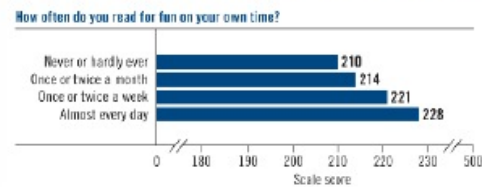
The NAEP Data Explorer is a way to drill deeper in the data for Your State and Your District, with much more detail than the NAEP Report Cards.

Background Questions: Identify at-home and in-class factors related to academic achievement

Fourth-graders who read for fun almost every day score higher

Students were asked how often they read for fun on their own time. Students selected one of four responses indicating “never or hardly ever,” “once or twice a month,” “once or twice a week,” or “almost every day.” In 2011, fourth-graders who reported reading for fun almost every day scored higher on average than those who did so less frequently, and students who reported never or hardly ever reading for fun scored lowest (figure 12).

Figure 12. Average scores in fourth-grade NAEP reading, by students’ responses to a question about how often they read for fun on their own time: 2011



For example, data about NAEP background questions are on the Data Explorer.

Background Questions:

Identify at-home and in-class factors related to academic achievement

Possible Questions:

- ★ *What can parents do at home or in conjunction with teachers to assist education leaders in increasing achievement for all children and closing the gaps?*
- ★ *Are teachers actively engaging parents either directly or through student activities?*

Background questions are asked of students, teachers, and principals. They address factors related to achievement.

ACCESSING NAEP DATA TOOLS



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I will now give you a very brief overview about accessing NAEP on-line tools. The brochures in your packet will provide more details. We invite you to visit the NAEP booth in the Exhibition Hall—the staff there have a laptop and will be able to give you a demo.

The address for the NAEP website is nces.ed.gov/nationsreportcard/.

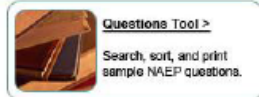
The arrow at the top is pointing to this address.

The arrow on the left is pointing to a button that says—Sample Questions, Analyze Data and More. Click on this button.

NAEP Website Tools and Applications



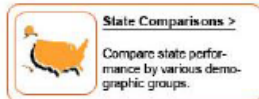
[The NAEP Data Explorer](#) (NDE) creates customizable tables and graphics to display NAEP results.



[The NAEP Questions Tool](#) (NQT) provides access to over 2000 released questions from NAEP assessments in all NAEP subject areas.



[Item Maps](#) help to illustrate the knowledge and skills demonstrated by students performing at different scale scores on NAEP assessments.



Create tables that [compare states/jurisdictions](#) based on average scale scores for public school students within a single assessment year, or that compare the change in performance between two assessment years.



Use [State Profiles](#) to examine key NAEP results over the years, and to explore each state's student demographics and school characteristics.



This takes you to a page that has the NAEP tools, including the questions tool and the data explorer.

We are going to click on the questions tool.



Explore NAEP Questions

After each assessment, NAEP releases dozens of sample questions to the public—more than 2,000 questions are currently available. The tools featured here can be used to supplement classroom instruction, provide additional insight into the content of the assessment, and show what students nationally or in your state or district know and can do. Explore the tools or print a [quick reference guide](#) to find out more about NAEP.

Questions Tool >>



Explore a database of released NAEP questions.

Item Maps >>



See what students at each achievement level are likely to know and can do.

Test Yourself >>



Try out actual questions administered to students in the NAEP assessments.

Scoring >>



Learn how NAEP questions are scored.

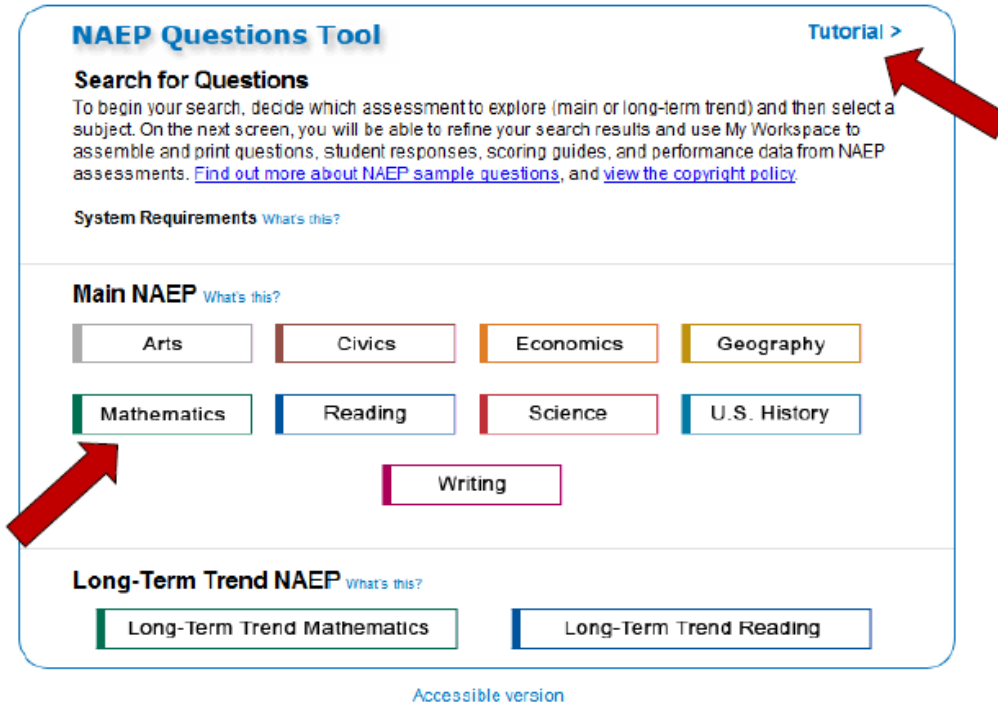
What's New?

- Results of the 2011 [mathematics](#) and [reading](#) assessments.
- 71 multiple-choice and 27 constructed-response [mathematics](#) questions.
- 34 multiple-choice and 27 constructed-response [reading](#) questions.



This takes us to a page for exploring NAEP questions in different ways, including a test yourself link.

But we are going to click on the Questions Tool link.



This takes us to the question tool. The arrow in the upper right will take you to a tutorial, so even with your Questions Tool brochure, you may want to try this first.

The arrow at the bottom is pointing to the subjects for Main NAEP—this is where you will find questions and results for states and districts—which are likely to be the most interest to you.

You click on a subject and then explore easy, medium and hard questions, open ended and multiple choice, at grades 4, 8, or 12.

You can print them out, along with national, state, and Trial Urban District data.

What Can Parent Leaders Do?

- ★ **Learn** about NAEP data and resources to ask informed questions about education, achievement and achievement gaps in Your State/District.
- ★ **Share** NAEP data with other parents, your organization, teachers, education leaders, and school boards.
- ★ **Identify** achievement factors that can make a difference in Your State/District.
- ★ **Ask** your teachers and leaders about plans to raise achievement and close gaps.



So—what are some things Parent Leaders can do with NAEP data?

For More Information...

★ **National Assessment Governing Board:**

www.nagb.org

★ **The Nation's Report Card:**

www.nationsreportcard.gov

★ **Tools:**

<http://nces.ed.gov/nationsreportcard/about/naeptools.asp>



Thank you very much. There is a printout of this page in your packets.